

ABSTRACT OF THE DISCLOSURE

Techniques for managing leased network addresses for multiple networks using overlapping address spaces include storing banks of addresses corresponding to the multiple networks. A

request for a network address for a host on a first network is received from a relay agent on

5 an intermediate device. The request includes a qualifier associated with the first network by

the relay agent. A first bank of addresses is selected based on the qualifier. A first network

address from the first bank is identified based at least in part on the request. A response for

the host is sent to the relay agent. The response indicates the first network address and the

qualifier. Thus a dynamic host configuration protocol (DHCP) server can provide the same

10 network address for several hosts spread over different networks, such as different virtual

private networks (VPNs).